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COLEOPTERA¹.

I. COLEOPTERA PHYTOPHAGA.

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Contents. § 1, *General remarks*; § 2, *Systematic account*; § 3, *Bibliographic list*.

§ 1. General Remarks.

THE remarkably successful zoological work of Mr Perkins has thrown fresh light on many points connected with the entomology of the Hawaiian Islands. It would be out of place to discuss most of these points at present, but there is one to which I may here allude. It was formerly supposed that very few specimens of any of the precinctive² species could be obtained. As the geographical area of the islands is very small, it of course followed as a corollary that the number of individuals existing of a species was extremely small. Although there is still much truth in this idea, it has nevertheless become clear that in many cases the limitation is far from being so great as we supposed it to be, Mr Perkins having procured a large number of individuals of numerous precinctive species. He has however succeeded in doing this in most cases only by tracing the exact conditions under which they exist. It thus remains true that, compared with the great majority of Insects in other parts of the world, the individuals

¹ Owing to the great extent of the Hawaiian Coleoptera this Order will be dealt with in divisions.
EDITOR.

² I use the word precinctive in preference to endemic or peculiar—both of which are in common use—in the sense of “confined to the area under discussion.” The word endemic has been objected to on the grounds that its derivation does not indicate geographical restriction, and that it is actually used in medicine to signify constant, but not necessarily exclusive, presence in a locality. The word peculiar has no special connection with geography and when used by itself is often inadequate to convey the meaning intended; so that when one speaks of “peculiar” forms it is necessary to add some expression to make it clear that geographical peculiarity is meant. Hence we require another word that can be used when there is no context (as in tables), or when the context does not make it clear that geographical restriction is the point in view. Precinctive appears to me suitable for this purpose and I see no objection to the use of the word restricted. “Precinctive forms” means therefore forms that are confined to the area specified.

of a species actually existing are very few; the species having not only a very small geographical distribution, but also being found in but few stations in the area.

The fact that species are sometimes found in considerable numbers at some of these stations renders it doubtful whether there is diminished fertility of the individuals, as I formerly supposed. At present there is but little evidence on this point.

Whether the Insects are unusually specialised in their modes of life is also doubtful. Most of them are either forest species, or are of alpine or subalpine habits.

Many forest Insects in other parts of the world are notorious as being but rarely met with. In the New Forest, in the south of England, this is certainly the case, and it is probably due to the fact that trees are only attacked when they are in certain stages of decay, or offer some special kind of shelter, or are accompanied by some particular kinds of fungoid growths.

Variation. In the case of two or three of the species dealt with in this paper I have had at my disposal some hundreds of specimens for examination. It therefore seems necessary that I should make some remarks on their variation, though on considering this I find that the data are very inadequate for a complete discussion. Nevertheless it will be well to present certain facts with regard to the genus *Plagithmysus* which appears to be one of the most suitable genera for the study of variation in Hawaiian Insects.

Twenty-nine species of this genus are now known. But about nineteen of these have each been found only in a single station, and of the remaining ten several are so rare that no opinion can be pronounced as to their variation. We have little or no information as to the distribution of the species beyond the fact that no species has yet been found on more than one island. It would scarcely be possible to find species more closely allied than are some of these *Plagithmysus* and yet, so far as the specimens yet procured entitle us to judge, though found in the same locality and at the same season they appear to be really distinct. *P. varians*, *P. darwinianus* and *P. lamarckianus* are examples of this, all of them having been procured at Kilauea in August; they are as closely allied as any three species can be.

Varieties of the same species may be found together, and copulate indiscriminately. The variation is not indiscriminate. It appears probable that each species has its own set of variations and in some cases closely allied species could be defined by their variation. As an example I may refer to the colour of the hind legs. In *P. aequalis* these are either black or red, there are no intermediates although the two kinds copulate indiscriminately. The species is as regards this character dimorphic. In the three closely allied species—*P. varians*, *P. darwinianus*, *P. lamarckianus*—the facts are different. Here also there is variation in the redness or blackness of the legs, but the varieties of one species are not completely discontinuous. Moreover the species differ from one another in their variation in this respect. *P. varians* is very variable as regards the character in question. A highly remarkable variety of it has each leg half

red, half black. This variety is very common in this species but does not occur at all in either of the two allies though each of them is variable to a greater (*P. lamarckianus*) or less (*P. darwinianus*) extent as to the redness and blackness of the legs. *P. varians* is almost trimorphic as regards the colour of the legs, but the three forms are not completely distinct, and one of them is very much rarer than the other two.

Of *P. darwinianus* I have not a large series before me, but Mr Perkins examined a large number of specimens of this species captured by Mr A. Koebele and tells me that the legs are always red or nearly so in it¹.

Thus as regards the character here considered we find that *P. aequalis* is dimorphic, that *P. varians* is imperfectly trimorphic, and that *P. darwinianus* is only slightly variable.

Very little information is available as to local variation. We have not received any one species of *Plagithmysus* from more than one locality in any considerable number; the specimens we have received lead me however to anticipate that considerable local difference in the variation exists. As an example I may mention that the five specimens of *P. aequalis*—a species confined to the island of Kauai—found at Waimea in April cannot be quite matched by any specimens of the large series found at Makaweli in January and February. Whether greater information as to local variation would lead to the union of some of the species at present treated as distinct, is a point on which I am not at all positive.

I may however point out that the three closely allied species I have already mentioned as being found in one locality have there each a different food-tree. In other words they are segregated by food though not by locality.

The two closely allied species, *P. blackburni* and *P. darwinianus*, exhibit the converse of this. Though both are found in the island of Hawaii and have the same food-tree they have not yet been found in the same locality. Each of these species has however as yet only been once or twice met with. It would be very interesting to know whether they ever occur together, and if so whether they still remain distinct.

In connection with this I must not omit to call attention to the peculiar case of *P. vitticollis* with its var. *longulus*, and of *P. bishopi* with its var. *gracilis*. In the case of these species the variety and typical form inhabit either different localities or different trees. We know however but little about these two species, and it is possible that these "varieties" may be incipient species, or even closely allied, but actually distinct forms. At present it holds good that all the forms I have treated as distinct species are segregated either geographically or by food: and this also applies to the two varieties just mentioned.

¹ A small series only of *P. lamarckianus* having been procured I do not mention its variation here, but may refer the reader to p. 110. It appears to be different from either of the other species as regards the character under discussion.

Distribution. Turning our attention to distribution, we note that the Coleoptera Phytophaga of the world consist of three great families: Chrysomelidae, Bruchidae, and Cerambycidae.

(1) Chrysomelidae. There are about 18,000 species of Chrysomelidae known, they are found nearly everywhere except in the Hawaiian Islands, where there is only a single species; and even this has apparently been introduced quite recently. Chrysomelidae live on foliage, and the Hawaiian Islands are doubtless well adapted to sustain them, so that the absence of this great family has an important significance.

(2) Bruchidae. A family of about 700 species, of very little importance in this connection. The species live in seeds and are carried about by commerce. A few specimens have been found at Honolulu.

(3) Cerambycidae. One of the important families of Coleoptera, consisting of upwards of 12,000 species. Fifty-four have been discovered in the Hawaiian Archipelago, of which number forty-five are precinctive, while nine have been found elsewhere. These nine species belong to as many different genera; the individuals do not differ in the islands to any appreciable extent from those found elsewhere. Owing to their comparative lack of interest they have however been but little collected. There is nothing in their distribution that throws any light on the origin of the Hawaiian fauna. The forty-five precinctive species of Cerambycidae belong to two very distinct categories. First there are single species of two genera of Prionini. Each of the genera to which they belong has a wide distribution; the Hawaiian forms are not closely allied to any of the external forms; they are in fact rather more distinct than is usual in their genera, so that there is no indication of special affinity with species of any other locality. The forty-three precinctive species of Cerambycini are totally different from the two Prionini we have discussed: they belong to three genera, very closely allied *inter se*, and form a special group or tribe—Plagithmysides—peculiar to the islands, distinguished by the wings having no transverse fold. They seem to be nearest allied to the genera *Neoclytus* and *Euryscelis*, which are found in North and Central America and the Greater Antilles. They are in appearance the most remarkable of the Hawaiian Coleoptera and must be considered as a very highly specialised group of Cerambycidae. They are remarkable in their habits¹.

Thus there is a very great distinction between these Plagithmysides and the non-precinctive Cerambycidae found in the islands; but the two endemic Prionini occupy as it were an intermediate place in their characters. These latter may be compared with the *Corvus hawaiiensis* amongst the birds, while the Plagithmysides appear to be analogous with the Drepanidae.

¹ See on this point Perkins, Ent. Mag. xxxii. p. 190, and P. Cambridge Phil. Soc. ix. p. 373.

§ 2. Systematic account of the Coleoptera Phytophaga.

Fam. CHRYSOMELIDAE.

EPITRIX Foudr.

(1) *Epitrix parvula* Fabr.

Crioceris parvula Fabr., Syst. El. 1. p. 468.

HAB. Oahu, Waiaanae mts.; Molokai. On "poha" or "cape gooseberry"—a plant which has no precinctive insect attached to it.

Mr Jacoby has examined some of our specimens of this insect, and informs me that they are not to be distinguished from *E. parvula*, a species widely distributed in Central America and the Antilles. The species was not found by Mr Blackburn and has probably been recently introduced.

Fam. BRUCHIDAE.

BRUCHUS L.

Bruchus, sp.

Species of this family are doubtless occasionally carried to islands with peas and beans, or other seeds. Mr Perkins has brought back two or three specimens found at Honolulu.

Fam. CERAMBYCIDAE.

Subfam. PRIONINI.

PARANDRA Latr.

(1) *Parandra puncticeps* Sharp.

Parandra puncticeps Sharp, Tr. Ent. Soc. London, 1878, p. 202.

Rare, of nocturnal habits, chiefly found in the month of September, in several islands.

HAB. Kauai, 4000 ft. May, July, September, and October, Perkins.—Oahu, in "*Acacia falcata*" in the mountains, Blackburn.—Molokai, September 1893, Perkins.—Hawaii; Kona, July and September, Perkins.

This species exhibits a great deal of variation in the form and proportions of the prothorax, epistome, mandibles, etc. and there may possibly be more than one form in the islands. The material before me is not sufficient to decide as to this, owing to the development of the individual being subject to much variation; but the varieties appear to be to some extent located in different islands.

AEGOSOMA Serv.

(1) *Aegosoma reflexum* Karsch.

Aegosoma reflexum Karsch, Berlin. ent. Zeitschr. xxv. 1881, p. 7, Pl. I. fig. 11.

HAB. Kauai, in July, Perkins.—Maui; Grove Ranche, Karsch; Haleakala, Perkins.—Hawaii; Kona and Kilauea, Perkins.

This species is common in the larval state, in wet or dry, decayed wood, and is also found in trees that are not entirely dead. The imago is rare, being nocturnal, and only occasionally attracted by light.

Subfam. CERAMBYCINI.

Group OEMIDES.

XYSTROCERA Serv.

(1) *Xystrocera globosa* Olivier.

Cerambyx globosus Oliv., Ent. iv. 67, p. 27, p. xii, fig. 81.

HAB. Oahu; Honolulu (Perkins). No doubt recently introduced. The species is widely distributed outside the islands, and its occurrence in Honolulu has no special interest.

Group HESPEROPHANIDES.

ASTRIMUS Sharp.

(1) *Astrimus hirtus* Fairm.

Stromatium hirtum Fairm., Rev. Zool. 1860, p. 50.

(n. syn.) *Astrimus obscurus* Sharp, Tr. Ent. Soc. 1878, p. 204.

HAB. Oahu; Honolulu, Blackburn.

This was no doubt introduced, and it is doubtful whether it has become naturalized or has died out. It was not met with by Mr Perkins. The species is widely distributed, having been found in Siam, Fiji, and the Philippine Islands as well as in Tahiti. Mr Gahan considers *Gelonaetha* Thoms. to be the same genus as *Astrimus* Sharp. I was formerly of the opinion that *Stromatium hirtum* was a different species, but I now accept Mr Gahan's identification of the two.

Group *CALLIDIOPSIDES*.

CERESIUM Newman.

(1) *Ceresium simplex* Gyll.

Stenocorus simplex Gyll. in Schönherr Syn. Ins. App. 1, 3, p. 178.

Ceresium simplex Sharp, Tr. Ent. Soc. London, 1878, p. 203.

HAB. Oahu; Honolulu, Blackburn, Perkins; Waialua, Perkins.—Molokai, Perkins.—Maui; Wailuku, Perkins.

The species is widely distributed in the Pacific islands, but the record of it as occurring in New Zealand (*Callidium zelandicum* Blanchard, Voyage Pole sud, iv. p. 272, Pl. XVII. fig. 4) was probably erroneous; Blanchard's figure does not appear to represent this species. It probably occurs on all the islands where the introduced Acacia—*Prosopis*, sp. ?—is found. It comes freely to light and has been noticed by Mr Perkins on all the islands except Lanai, though I have mentioned above only localities that have been specially noted.

CURTOMERUS Steph.

(1) *Curtomerus pilicornis* Fab.

Callidium pilicorne Fab., Ent. Syst. 1, 2, p. 327.

Curtomerus luteus Steph., Ill. Brit. Ent. iv. p. 249.

Sotenus setiger Sharp, Tr. Ent. Soc. London, 1878, p. 205.

HAB. Oahu; Honolulu, Blackburn, Perkins.—Also seen on Maui at Lahaina. The species is no doubt liable to be carried about, having been found on one occasion in England. Other localities are South America, the W. India islands, and Florida.

Group *CLYTIDES*.

CLYTUS Laich.

(1) *Clytus crinicornis* Chevr.

Clytus crinicornis Chevr., Ann. Soc. Ent. France, 1860, p. 460.

HAB. Oahu; Blackburn, Perkins.—Kauai; Perkins.—Molokai, Perkins.—Abundant all over the islands, on the introduced Acacia, *Prosopis*, sp. This is a Central American species.

Group *PLAGITHMYSIDES*.

The difficulty of distinguishing the three genera of *Plagithmysides* has considerably increased in consequence of the discovery of additional forms. The characters distinguishing *Clytarlus* from *Plagithmysus* are, that in the former genus the hind legs are clubbed and possess a long slender basal stalk. A sexual difference in the form of the legs is constant in *Clytarlus* inasmuch as the femora of the female are less clubbed than they are in the male (Plate VI, figg. 2 and 3). On the other hand in the large majority of the species of *Plagithmysus* there is very little difference in the legs of the two sexes, and the femora are never abruptly clubbed, and with a long thin basal stalk. The females of *Plagithmysus funebris*, *arachnipes* and *cristatus* possess however much more slender legs than their males, and therefore considerably approach *Clytarlus*. The female of *Clytarlus pennatus*, has the legs but little clubbed, and therefore there is but little difference between it and the females of the three species of *Plagithmysus* mentioned.

The male of *Plagithmysus cristatus* approximates in the form of the legs to *Callithmysus*. Thus this species is as it were the central point of the group, its male approaching *Callithmysus*, while its female comes near to *Clytarlus*.

It is also desirable to mention, in connection with the extraordinary reduction in size of the abdomen in this group, that this character is subject in the females of the same species to great variation. This is probably in connection with the growth of the ovaries. Some of the females have the abdomen very small, while in others, of the same sex and species, it is of the size normal in Coleoptera.

Mr Perkins has observed that the extraordinarily complex stridulating organs of these insects are brought into play during breeding, and that very frequent coupling occurs, and this to an extent that is almost unknown otherwise in insects; the *Plagithmysides* are extremely active and are apparently both polyandrous and polygamous. He has also suggested that the size of the abdomen influences the stridulating. So that all the observations that have been made tend to show that the unequalled complexity of the stridulating organs is correlative with the unusual system of copulation and probably plays an important part in it.

CLYTARLUS Sharp.

Clytarlus Sharp, Ent. Mo. Mag. Oct. 1896, p. 238.

Clytarlus (pars) Sharp, Tr. Ent. Soc. London, 1879, p. 102.

All the species of *Clytarlus*, except *C. abnormis*, are attached to one of the two *Acacias*, *Sophora chrysophylla* and *Acacia koa*. They are rare and difficult to obtain. The material before me is not adequate for the satisfactory elucidation of these very difficult insects.

(1) *Clytarlus filipes* Sharp.

Clytarlus filipes Sharp, Tr. Dublin Soc. (2) III. 1885, p. 196.

This species has the punctuation of the upper surface denser and finer than in the allies. It is readily distinguished, so far as the male is concerned by the peculiar structure of the dorsal plate of the genital segment, which is unusually large and very deeply notched, so that the two angles project as a sort of forceps at the tip of the body. (Plate VI. fig. 1 a.)

HAB. Hawaii; Mauna Loa, "on Acacia sp." Blackburn: Kona and Kilauea in August and September; Kau, the half-way house, Sepr. Perkins. Apparently rare, we having received only 15 examples. Attached to *Sophora chrysophylla*.

(2) *Clytarlus mediocris*, sp. nov.

Minor, fusco-niger, depressus, opacus, albido-vestitus, elytris plus minusve conspicue transversim fasciatis, antennis pedibusque fusco-testaceis, femoribus basibus pallidis. Long. $4\frac{1}{2}$ — $6\frac{1}{2}$ millim.

(Plate VI. figs. 1 and 1 b.)

Closely allied to *C. filipes*, but with a shorter stalk to the hind femora, and with the terminal dorsal plate of the male much less deeply excised.

HAB. Maui; a series of 38 specimens was found on Haleakala, 3000—5000 ft. May 1896. Attached to *Sophora chrysophylla*.

(3) *Clytarlus fragilis* Sharp.

Clytarlus fragilis Sharp, Tr. ent. Soc. London 1881, p. 534; Tr. Dublin Soc. (2) III. 1885, Pl. V. fig. 48.

HAB. Oahu; Palolo Valley, November, Blackburn: Waianae mountains, February 1896, and April 1892; beaten from dead branches of Koa, Perkins. Apparently very rare, only four specimens having been obtained. On *Acacia koa*.

(4) *Clytarlus debilis*, sp. nov.

Minor, subdepressus, testaceo-brunneus, in elytris subfasciatus, dense punctatus, pedibus ex parte majore testaceis, femoribus posterioribus clava abrupta. Long. ♀ 9 millim.

Closely allied to *C. fragilis*, but with the club of the hind femora rather longer,

and the punctuation of the elytra denser; the punctuation on the brown band behind the scutellum denser and finer. The antennae are rather long, yellow, but little thicker at the tip. The pronotum is transversely evenly convex without median or lateral crests, there being a single ante-median, and two smaller post-median transverse elevations. The punctuation on the apical parts of the elytra is obsolete; the colour of the hairs forming the obscure elytral fasciae is yellow rather than white; the pubescence on the femora is long, and that on the under surface of the body is long and scanty. The stalk of the hind femur is very pallid and long, the club is abrupt, brown. Only five abdominal segments can be seen in the male, and the hind-margins of the dorsal and ventral plates of the fifth are broad and nearly straight.

Only two specimens of the male sex have been found.

A third specimen, from Mauna Loa 17. VII, 92, is I have no doubt the female; it is much larger, and has much less abruptly clubbed femora.

HAB. Hawaii; Mauna Loa (W.) Sepr. 1892, 4000 ft.; Hualalai, 5, VIII, 92, 5000 ft. On *Acacia koa*.

(5) *Clytarlus obscurus*, sp. nov.

Minor, rufo-obscurus, vel fuscus, albido-pubescentis, in elytris subfasciatus, antennis pedibusque testaceis, femoribus clava fusca. Long. $4\frac{1}{2}$ — $6\frac{1}{2}$ millim.

Var. Antennis pedibusque ex parte majore nigris.

This is an excessively variable species in the colour of the elytra, legs and antennae, in the length of the white hairs, and in the fasciae of the elytra; it also varies considerably in the elongation of the legs; the variation in size seems to be less than it is in some other species. The thorax usually appears somewhat depressed longitudinally on each side of the middle, so that the middle appears slightly crested, but the transverse elevations on the middle are very small. The legs bear a very distinct, fine long pubescence; the hind femora have a long basal stalk yellow in colour, and a darker, moderately long and abrupt club, which is much thicker and more abrupt in the male than it is in the female. The genital segment of the male is simple. The punctuation in this species is less dense and fine than in *C. filipes* and *mediocris*, and the simple genital segment of the male clearly distinguishes *C. obscurus* from both those species. The paler varieties closely resemble *C. fragilis* and *C. debilis*, but may be separated therefrom by the less abrupt club of the femora, and by the darker colour.

HAB. Kauai; in several localities at a height of about 3000 feet, Perkins; nearly fifty specimens. On *Acacia koa*.

(6) *Clytarlus modestus* Sharp.

Clytarlus modestus Sharp, Tr. ent. Soc. 1879, p. 104.

HAB. Maui; Haleakala, 4—5000 ft. in April and May, "on *Acacia falcata*," Blackburn; Haleakala, 5000 ft. May, Perkins. On *Acacia koa*.

(7) *Clytarlus claviger*, sp. nov.

Secundum sexum diversus. Mas, rufus, albido-pubescentis, elytris fere nudis, in medio longitudinaliter breviter albido-signatis, femoribus abrupte clavatis, clava nigra. Fem., fusca, albido-pubescentis, antennis pedibusque testaceis, his gracilibus, clava fusca, gracili. Long. ♀ $7\frac{1}{2}$ millim.

This is closely allied to *C. modestus*. The thorax is a little cristate along the middle. The punctuation of the elytra is dense and fine, and leaves the surface a little shining.

HAB. Hawaii; Kilauea, June 1895. On *Acacia koa*.

Although only two males and one female have been obtained, and the two individuals of the male sex are very different in appearance, yet I have little doubt that they belong to one species, and are distinct from *C. modestus*. The male is readily distinguished by the black femoral club, and the female by its larger size and darker colour. The individual of the female sex is very different from the males.

(8) *Clytarlus laticollis*, sp. nov.

Rufo-testaceus, parum pubescens; pedibus minus elongatis, femoribus clava rufa, elongata; thorace densissimè punctato, medio late obtuseque elevato; elytris fortiter punctatis, medio plagis obsolete albido-pubescentibus. Long. 7.75 millim.

Only one specimen—a male—has been obtained. The species has the clubbed legs of *Clytarlus*, but the slender stalk is less elongate than in the normal *Clytarlus*, being in fact only as long as the club. Thorax broad and short, extremely densely punctured, almost without pubescence, with a broad elevation—rather than a crest—along the middle, and with five or six transverse elevations on this. Elytra much narrowed behind, strongly punctured at the base, obsolete at the tip, with very little pubescence but with a small divided mark of scanty white hairs on the middle.

HAB. Maui; Haleakala, 5000 ft. May 1896, Perkins. On *Acacia koa*.

(9) *Clytarlus abnormis*, sp. nov.

Rufus, pectore fusco; pedibus minus elongatis; thorace densissime punctato, supra inaequali, haud cristato; elytris dense, subtiliter punctatis, singulo posterius ad suturam linea pubescentiae albescente. Long. 9.5 millim.

Only one specimen—a male—has been received of this distinct species; the legs are formed much as in *C. laticollis*, but in several other respects the two species are very distinct. The thorax is not like that of any other species; it is very densely punctured above, and has no transverse elevations or scabrosities along the middle, but has an obtuse conical tubercle in front, and a broad obscure elevation behind; the surface is also more prominent on each side, so that the dorsum is very uneven. The elytra are rather shining; the line of pubescence along the suture of each extends from the tip to a little in front of the middle, and there are a few additional pallid hairs on the outside of each line where it ends. The club of the hind femora is elongate and very gradual.

HAB. Hawaii; Oloo, September 1896. Probably attached to *Metrosideros* or *Straussia*; not to *Acacia*, as there are none growing in the locality of its occurrence.

(10) *Clytarlus pennatus* Sharp.

Clytarlus pennatus Sharp, Tr. ent. Soc. London 1881, p. 532.

(Plate VI. fig. 2 ♂, fig. 3 ♀.)

The specimen originally described was a male. Both sexes vary much in size; the female is more slender, and the legs are much thinner and bear but little pubescence. A fine series has now been obtained; the variation is considerable as regards colour, size (8—12½ millim.) and pubescence, but is nothing like so great as it is in several species of *Plagithmysus*.

HAB. Maui; Haleakala, Blackburn; Haleakala, 5000 ft. February and May, Perkins. On *Acacia koa*. Mr Blackburn originally met with this species "on the same tree as *Proterhinus lecontei*." *C. pennatus* and *P. lecontei*, according to Mr Perkins' observations, live on different species of trees, so that the earlier record was probably based on a mere accidental occurrence.

(11) *Clytarlus nodifer*, sp. nov.

Fuscus, vel testaceus, dense albido-pubescentis, elytris vel fasciis interruptis duabus, vel maculis quatuor denudatis; pedibus testaceis minus elongatis; maris femoribus abrupte clavatis, clava fusca dense albido-vestita; feminae clava gracili fusca, parum dense albido-setosa; tibiis apice fusco. Long. 6—12 millim.

Allied to *C. pennatus*, but with shorter legs, and more abrupt club to the posterior femora. Thorax strongly cristate, with an abrupt anterior vertical elevation, and a well-marked posterior elevation bearing two carinae. The colour of the elytra varies, it is usually blackish, but is sometimes yellow along the outer margins; the white pubescence is more dense in the male than in the female; the denuded spaces are densely and finely punctured. The femoral club is very dark, in abrupt contrast to the pallid stalk, and it is variegated with white pubescence which is much more extensive in the male than it is in the female; in the latter sex the club is only slender, and is not abrupt.

HAB. Hawaii, Kona, 3000 ft. March 1896. A small series of eleven specimens, unfortunately much broken. Attached to *Acacia koa*.

(12) *Clytarlus longipes*, sp. nov.

Gracilis, dense subtiliter punctatus, opacus; mas rufus, elytris parce albido-vestitis, ante medium fascia angulata denudata, pedibus testaceis, femoribus clava elongata rufa; femina supra fusca, thorace plus minusve evidenter rufo-vittato, elytris tenuiter albido-vestitis, haud signatis; pedibus fuscis, femoribus basi testacea. Long. 6—8½ millim. (Plate VI. fig. 4 ♂.)

This species exhibits considerable difference between the sexes. The male to a certain extent reminds one of *Plagithmysus* both in form and colour, while the female is extremely similar to certain females of *C. obscurus*. The thorax is scarcely at all cristate, but has a well-marked elevation in front, and two behind the middle, it is very densely punctate, and has very little pubescence; it is red in the male, black, obscurely striped with red in the female. The elytra are finely, very densely punctured, quite dull. In the male they are red, with an angular space covered with white pubescence about the scutellum, and also with the apical half bearing a good deal of white pubescence. In the female they are nearly black, red only at the basal margin, and there is white pubescence scantily distributed all over them and not forming a pattern. The legs are very different in the two sexes; in the male the middle femora are shaped as in *Plagithmysus*, but the hind legs are those of *Clytarlus*, with a rather long club: in the female the middle and hind legs are long and slender, with long slender clubs to the femora.

This species was found in sufficient numbers to make it probable that the sexual distinctions are fairly constant. It appears to have been found in company with *C. obscurus*, and some of the females of the two are so similar that comparison of the form and length of the legs is necessary to distinguish the most similar examples; while between the males of the two species there is but little resemblance.

HAB. Kauai; thirty specimens. On *Acacia koa*.

(13) *Clytarlus annectens*, sp. nov.

Gracilis, rufus, dense punctatus, elytris in dimidio apicale guttis minutissimis albidis; pedibus basi antennisque flavis: femoribus posterioribus clava elongata, suboblonga. Long. 7.5 millim.

Only one individual, a male, has been found of this species which might be placed with as much propriety in *Plagithmysus* as in *Clytarlus*. The thorax is not crested along the middle, but there is a slight anterior elevation, and numerous minute irregular scabrous elevations behind it: the sculpture is excessively dense and fine and there is almost no pubescence. The elytra are much narrowed behind, and are densely and rather closely punctured: there are some excessively minute spots of white hairs on the apical part near the suture, and also a few below the shoulder. There is a dense white pubescence on the sides of the breast. The middle legs have a long club and a rather short but slender stalk; on the hind legs the stalk is longer and slender, so that I refer the species to *Clytarlus* rather than to *Plagithmysus*.

HAB. Kauai, 1894. On *Acacia koa*.

PLAGITHMYMUS Motsch.

Stenopterus? Motschoulsky, Bull. Soc. Moscou, 1845, p. 85.

Plagithmysus, id. op. cit. Pt. II. 1845, p. 41; Sharp, C. R. Soc. ent. Belgique, 1885, p. lxxiv; id. Ent. Mo. Mag. 1896, p. 237.

Ænemonia (erroneously), Motschoulsky, Etudes ent. 1852, p. 76.

Neoclytus (pars), Horn, Tr. Amer. ent. Soc. v. p. 150.

Clytarlus Sharp, Tr. ent. Soc. London, 1878, pp. 206 and 208.

Clytarlus (pars), id. op. cit. 1879, p. 102.

Mr Perkins has obtained fine series of this genus, enabling me to feel pretty certain that the species are fairly distinct, and can be readily recognised notwithstanding their being in many cases very closely allied. No species has been found on two islands. Apparently each species is confined to one kind of tree. Nine of the species are attached to one or other of the precinctive Acacias. Closely allied species are attached in certain cases to the same species of tree, but it would seem that they are in this case geographically separated. *P. blackburni* and *P. darwinianus* are both attached to *Sophora chrysophylla*, and both occur on the island of Hawaii, but they have not been found in the same locality there. Closely allied species (*P. darwinianus*, *varians* and *lamarckianus*) live in the same locality but are attached to different trees.

(1) *Plagithmysus vitticollis* Sharp.

Plagithmysus vitticollis Sharp, Ent. Mo. Mag. xxxii. 1896, p. 240.

(Plate VI. fig. 5; ♀.)

HAB. Hawaii, Kilauea, August 1895. On Akala (*Rubus* sp.) Perkins.

Var. *longulus* Shp. l. c.

HAB. Hawaii, Olaa.

Mr Perkins has now procured a fair series of the variety *longulus*. None of the individuals have any signs of being red on the elytra; the thoracic vittae are less definite, the lateral yellow patch being considerably less extensive and there are few or no white hairs on the hind feet. One or two of the individuals are however intermediate in these respects, so that it is probable that both var. *longulus* and the typical form belong to one species which has a slightly different variation in the two localities. As the two forms of the species live on different trees, it would be possible to infer that we have in this case a species in process of dividing into two.

(2) *Plagithmysus permundus*, sp. nov.

Gracilis, niger, thorace nigerrimo, vittis albidis angustis perdiscretis; elytris dense punctatis, signaturis irregularibus albido-ochraceis ubique ornatis; femoribus basi flava, tibus tarsisque rufo-obscuris, tarsis posterioribus, dense albido-hirsutis. Long. 12 millim. (Plate VI. fig. 6.)

A very distinct species, remarkable on account of the very definite white stripes on the jet-black thorax, and by the peculiar irregular but very definite pallid marks on the elytra, which along the suture are more confluent than elsewhere so as to form a pair of much broken irregular lines; the white tarsi, in contrast with the dark tibiae, are also remarkable. The antennae are thin and long. The hind and middle legs are very long, but not very thick. The under surface is black, and very definitely marked with patches of pale sulphureous scales; the posterior aspect of the hind coxæ has a very definite white patch on it. The femora are sparingly clothed with very short white hairs. The sexes apparently differ very little.

HAB. Kauai, 2000 ft. Feb. 1897: nine examples, Perkins. This feeds on the same tree—*Bobea* sp.? as *P. vitticollis* var. *longulus*, and *Callithmysus hirtipes*. The tree is called "ahakea" by the natives.

(3) *Plagithmysus newelli* Sharp.

Plagithmysus newelli Sharp, Ent. Mo. Mag. xxxii. 1896, p. 240.

(Plate VI. fig. 7.)

HAB. Maui; Brother Matthias Newell, a single example.

(4) *Plagithmysus concolor* Sharp.

Plagithmysus concolor Sharp, t. c. p. 241.

(Plate VI. fig. 8; ♀.)

HAB. Kauai; on "Ohia-ha," = *Eugenia*, sp. Perkins; Kaholuamano 4,000 ft. G. C. Munro. This species varies but little. The series of 27 specimens sent by Mr Munro differ but little in colour and markings, and range in length between $8\frac{1}{2}$ —18 millim.

(5) *Plagithmysus solitarius* Sharp.

Plagithmysus solitarius Sharp, t. c. p. 241.

HAB. Oahu, Nuuanu Valley, 2000 ft., October 1892; Perkins. Unique.

(6) *Plagithmysus cuneatus* Sharp.

Plagithmysus cuneatus Sharp, t. c. p. 241.

(Plate VI. fig. 9; ♀.)

HAB. Oahu, Kaala 1000 ft., March 1893; Perkins. Mr Perkins is unfortunately not acquainted with the name of the tree on which this species was found.

(7) *Plagithmysus finschi* Har.

Clytarlus finschi Harold, Mitt. München. ent. Ver. iv. 1880, p. 166; Karsch, Berlin. ent. Zeitschr. xxv. 1881, p. 8, Pl. I. fig. 13.

Plagithmysus finschi Sharp, Ent. Mo. Mag. 1896, p. 242.

HAB. Maui, Olinda, Dr Finsch; 4000 ft., Blackburn; Haleakala 4000 ft., May; Perkins. On *Acacia koa* (Perkins). According to Blackburn on "*A. falcata*," but this gentleman appears to have erroneously called *A. koa*, *A. falcata*.

(8) *Plagithmysus funebris* Sharp.

Plagithmysus funebris Sharp, l. c. p. 273.

(Plate VI. fig. 10; ♂.)

HAB. Maui, Haleakala in May, and Sept.—Oct. Perkins. On *Sophora chrysophylla*.

(9) *Plagithmysus pulverulentus* Motsch.

Stenopterus pulverulentus Motsch., Bull. Mosc. 1895, i. p. 85, Pl. I. f. 12.

Plagithmysus pulverulentus Motsch., Bull. Mosc. 1845, ii. p. 41, Pl. VI. f. 7;

Sharp, Ent. Mo. Mag. xxxii. 1896, p. 242.

Clytarlus robustus Sharp, Tr. ent. Soc. 1878, p. 206.

HAB. Oahu, both ranges; on *Acacia falcata*, Blackburn (erroneously); Perkins, on *A. koa*.

(10) *Plagithmysus diana*, sp. nov.

Nigerrimus, dense regulariter griseo-ornatus: thorace subgloboso, griseo, nigro trivittato: elytris griseis, arcis denudatis nigris, ad suturam lineis latis discretis ante medium leniter divergentibus pallide pubescentibus, ante lineas has plaga angulariter nigro-pubescente. Long. 13 millim.

(Plate VI. fig. 11.)

An extremely distinct, beautifully, though soberly, ornamented species, with the sides of the thorax more strongly rounded than they are in any other species of the genus. There is a slight longitudinal carination of the middle of the thorax. The legs are entirely black even at the base, the posterior are elongate, but less incrassate than in most other species. The sexes appear to be very similar.

HAB. Kāuāi, 4000 ft., July, 1896. Eight examples; on *Pelea* sp.

(11) *Plagithmysus collaris*, sp. nov.

Niger, elytris, antennis pedibusque rufo-obscuris, his femoribus extrorsum tibiisque plus minus nigricantibus; pube pallide sulphurea ornatus; elytris densissime punctatis, singulo linea pubescente pallida antierius versus latus divergente, ante lineas plaga nigro-velutina, basi rugosa, parcellissime sulphureo-pubescente. Long. $8\frac{1}{2}$ —16 millim. Mas, prothorace ad latera densissime punctato. Fem., prothorace ad latera plus minus late laevigato.

(Plate VI. fig. 13; ♂.)

This is a very distinct species, somewhat similar to *P. bishopi* and *P. vicinus*. There are no definite thoracic stripes, but the thorax is broadly cristate and scabrous along the middle, and there are distinct lateral elevations; it is a good deal constricted at the base. The elytra are dark red, and remarkable on account of their dense punctuation.

HAB. Maui; Haleakala. The larva of this species was found in October, 1896, feeding in the wood of *Pelea* sp.; by carrying this wood to Honolulu Mr Perkins obtained a series of 20 specimens in the following December.

(12) *Plagithmysus bishopi* Sharp.

Plagithmysus bishopi Sharp, Ent. Mo. Mag. xxxii. 1896, p. 242.

(Plate VI. fig. 12.)

HAB. Hawaii; Kilauea, 4000 ft., August 1895, and 1896. On *Pelea* sp. (Perkins).

Plagithmysus bishopi var. *gracilis*, Sharp, *l. c.* The unique individual of this variety was found on another tree resembling "pua" but with lighter, smoother bark.

(13) *Plagithmysus vicinus* Sharp.

Plagithmysus vicinus Sharp, *t. c.* p. 243.

HAB. Hawaii; Mauna Loa, 3000 ft., October 1892; Perkins.

Undoubtedly a distinct species. On *Pelea* sp., but not the same species as that to which *P. bishopi* is attached.

(14) *Plagithmysus bilineatus* Sharp.

Plagithmysus bilineatus Sharp, *t. c.* p. 243.

(Plate VI. fig. 14; ♀.)

HAB. Hawaii; Kilauea, also in the Kona and Puna districts. On the "Ohia lehua" tree, *Metrosideros polymorpha*, Perkins.

Besides being found in more than one locality this species was obtained in plenty. The variation in size (from 9—20 millim. long) is considerable, but in respect of colour it is less than in some other species. Some specimens are considerably blacker than others; but the blackness shews itself chiefly on the elytra. The hind legs are sometimes much more broadly tinted with black towards the tips than they are in others, and this is in nearly all cases correlative with a greater extension of the black colour on the wing-cases. The head and thorax remain red in the whole of the series before me.

(15) *Plagithmysus lanaiensis* Sharp.

Plagithmysus lanaiensis Sharp, *t. c.* p. 244.

HAB. Lanai; Halepaakai, 3000 ft., July 1894, Perkins. Probably (but only inferentially) attached to *Metrosideros polymorpha*, this being the predominant tree in the locality of capture.

(16) *Plagithmysus perkinsi* Sharp.

Plagithmysus perkinsi Sharp, *t. c.* p. 244.

(Plate VI. fig. 15; ♀.)

HAB. Hawaii; Mauna Loa, in two localities, June and July. On *Myoporum*, or bastard sandal tree.

(17) *Plagithmysus varians* Sharp.

Plagithmysus varians Sharp, *t. c.* p. 245 (excl. var. γ).

HAB. Hawaii; Mauna Loa, Kilauea; Perkins. On *Acacia koa*.

This has been found in greater plenty than any other species and I have been able to examine about 200 individuals. The variation in the colour of the legs is of considerable interest. The extreme base of the femora being always yellow, the other parts vary. It may be said that the normal colour of the rest of the femur is black, but there are many specimens in which the apical third is bright red: all the intermediates between this state and the black form occur. The black and the red colours are not sharply delimited in these cases. There are two or three specimens in which the black colour is nearly entirely absent. And there is another, apparently very rare, variety, of an opposite character, in which the black colour is absent from the middle but present at the tips. There are only two or three examples of this variety known; and they resemble in this character *P. lamarckianus* rather than *P. darwinianus*. Though the black colour may be absent from either the tip or the middle it is never completely absent from both, there being no individual with quite red legs, though the black pigmentation is in a few cases but slight. In consequence of this deficiency these individuals bear a resemblance to *P. darwinianus* (in which species the legs are red). But these specimens do not approach *P. darwinianus* in other respects.

The former var. γ of *P. varians* is now *P. lamarckianus*.

(18) *Plagithmysus darwinianus* Sharp.

Plagithmysus darwinianus Sharp, *t. c.* p. 271.

(Plate VI. fig. 16; ♂.)

HAB. Hawaii; Kilauea, in August. On the "Mamane" tree *Sophora chrysophylla*, Perkins. In this species the legs never become black, but in some individuals—especially when the size is large—the red is somewhat darker, showing a very imperfect condition of blackness, analogous with that exhibited on the apical part of the femur

in some of the intermediate varieties connecting the forms of *P. varians*. In *P. darwinianus* the colour is however uniformly distributed.

It should be noticed that the red-leggedness of *P. darwinianus* is not due to mere deficiency of black pigmentation as compared with *P. varians*; for the black pigmentation of the wing-cases is much more extensive and decided than it is in even the darkest varieties of *P. varians*.

(19) *Plagithmysus lamarckianus*, sp. nov.

Rufo-flavus, antennis pedibusque rufis, femoribus basi flava, apice plus minus late nigricante; thorace vel nigro vel rufo, sat conspicue albido-vittato; elytris flavescens, dense punctatis, dorso late longeque nigro, singulo ad suturam linea albido-pubescente anterieus versus latus divergente. Long. 9—15 millim.

Plagithmysus varians, var. γ , Sharp, *t. c.* p. 245.

Var. α , femoribus rufis.

This species is somewhat doubtfully distinct from *P. darwinianus*. The pubescence of the under surface and of the legs is less elongate, the antennae are slightly thinner and usually darker in colour towards the tip, and the legs are usually more or less broadly black. As minor distinctions we may mention that the elytra are usually broader at the base, and are there never distinctly marked with white hairs; their black portions and the white lines on them are usually a little more extensive; the thoracic crest is a little more elevated on its posterior part.

HAB. Hawaii; Kilauea, August 1896, on the "mamake" or paper-mulberry. Although this lives in the same locality as *P. darwinianus* it frequents different trees, being attached to the Urticaceous trees, *Pipturus albidus*, and *Urera sandwicensis*. I have seen 33 specimens; the varieties with entirely red femora are very similar to *P. darwinianus*, and it is possible that it may prove that the two forms are not distinct species when more specimens are obtained. There were several specimens of *P. lamarckianus* in the series I originally referred to *P. darwinianus*, and I am indebted to Mr Perkins for directing my attention to the fact that there are probably two distinct forms.

(20) *Plagithmysus albertisi* Sharp.

Plagithmysus albertisi Sharp, Ent. Mo. Mag. xxxiii. 1897, p. 12.

(Plate VI. fig. 17; ♂.)

HAB. Oahu; West Honolulu, Feb. 25th, 1874; Signor d'Albertis. There is reason to fear that this species may now be extinct.

(21) *Plagithmysus pulvillatus* Karsch.

Clytartus pulvillatus Karsch, Berlin. ent. Zeit. xxv. 1881, p. 9, Pl. I. f. 14.

HAB. Maui; "Grove Ranche," Karsch; Haleakala, 5000 ft., Perkins. We have received only three individuals, and the species was described by Karsch on one female. It is one of the least attractive species, being remarkable for its uniform colour and freedom from definite ornamentation as well as for the very dense sculpture of the elytra. The species is probably verging on extinction owing to the destruction in this locality of the forest tree it inhabited. Insects are no longer to be found at Grove Ranche; but Mr Perkins procured his examples about 2000 ft. directly above its situation, on *Metrosideros polymorpha*.

(22) *Plagithmysus blackburni* Sharp.

Clytartus blackburni Sharp, Tr. Dublin Soc. (2) III. 1885, p. 195, Pl. V. f. 47.

Plagithmysus blackburni Sharp, Ent. Mo. Mag. 1896, p. 271.

HAB. Hawaii; found by Mr Blackburn [on "*Acacia falcata*"] on Mauna Loa in May; by Mr Perkins at Kona in the autumn, on *Sophora chrysophylla*. The only variation that occurs in the colour of the legs is the one that I have mentioned as being so rare in *P. varians*.

(23) *Plagithmysus sulphureus* Sharp.

Plagithmysus sulphureus Sharp, Ent. Mo. Mag. xxxii. 1896, p. 271.

(Plate VI. fig. 17; ♂.)

HAB. Hawaii; Kilauea, July 1895. The name of the tree to which this species is attached is unfortunately not known.

Since *P. lamarkianus* has been distinguished from *P. varians*, it should be mentioned that *P. sulphureus* is allied to the former more than to the second of these species.

(24) *Plagithmysus speculifer* Sharp.

Plagithmysus speculifer Sharp, t. c. p. 272.

HAB. Maui; head of the Jao Valley, June 1894. Unique. Food-tree unknown.

(25) *Plagithmysus aestivus* Sharp.

Plagithmysus aestivus Sharp, t. c. p. 272.

HAB. Molokai; in June and August, Perkins. On *Metrosideros polymorpha*.

(26) *Plagithmysus aequalis* Sharp.

Plagithmysus aequalis Sharp, Ent. Mo. Mag. 1896, p. 273.

HAB. Kauai; Mr Perkins procured a very large series of this species at Makaweli, January and February 1897, on *Acacia koa*. And I have also seen a few specimens from Waimea and Koholuamano.

This species is dimorphic as regards the colour of the legs, which are either red or black without intermediate states. The individuals with red legs are very numerous. Specimens with red thorax are very rare. The chief variations in these respects are as follows.

Var. β , pedibus capiteque rufis.

Var. γ , pedibus, capite thoraceque rufis.

I have not before me any specimens in which the legs are black without the head being so, but it is probable that such specimens occur, and, if so, would form var. α .

Four individuals found in April 1895 form a variety with shorter thorax, having more rounded sides, with more white pubescence on the upper surface, and the posterior femora a little differently shaped. One of the two originally described females is a very peculiar individual and may perhaps belong to another species.

(27) *Plagithmysus munroi*, sp. nov.

Rufo nigroque variegatus; elytris rufis, singulo posterius plaga nitida nigricante, fere aequaliter ubique albido-guttulatis; thorace albido vittato, femoribus basi flava. Variat thorace femoribusque rufis, vel nigris. Long. 11—12 millim.

(Plate VI. fig. 19; ♀.)

Closely allied to *P. aequalis*, but with the elytra nearly evenly spotted all over with white flecks of pubescence, there being however a small area in front of the middle densely and finely punctured. There is no definite spot of white on the mesothoracic episterna. The hind legs are very long, the femora moderately thick, and there is extremely little difference between the sexes.

HAB. Kauai. We are indebted to G. C. Munro, Esq., for the discovery of this species: he obtained six specimens of it in July 1897, 2000 ft. above Waimea.

(28) *Plagithmysus arachnipes* Sharp.

Plagithmysus arachnipes Sharp, t. c. p. 274.

(Plate VI. fig. 20; ♀.)

HAB. Kauai. May 1895. Perkins. On *Acacia koa*.

Both sexes of this species may be readily distinguished from *P. aequalis* by the longer, slender basal part of the femora: as this part is pallid yellow in colour, the discrimination of the two species is easy, though apparently the two are closely allied.

(29) *Plagithmysus cristatus* Sharp.

Clytarlus cristatus Sharp, Tr. ent. Soc. London, 1878, p. 207.

Plagithmysus cristatus Sharp, Ent. Mo. Mag. 1896, p. 274.

(Plate VI. fig. 21; ♂.)

HAB. Oahu; Honolulu, Blackburn; on *Acacia koa*, Perkins.

In this species the hind femora are peculiar in shape, being much like what they are in *Callithmysus*. The legs are much more slender in the female than they are in the male. The specimen supposed to be *Clytus attenuatus* Boisd. in the collection of the British Museum is, as Mr Gahan surmised, a female of this species. Boisdual's name has however no sufficient claim to validity, as will be seen from his description, repeated here on p. 115.

CALLITHMYSUS Sharp.

Callithmysus Sharp, Ent. Mo. Mag. xxxii. 1896, p. 238.

(1) *Callithmysus microgaster* Sharp.

Clytarlus microgaster Sharp, Tr. ent. Soc. 1879, p. 103; Tr. Dublin Soc. (2), III. 1885, Pl. V. fig. 46.

HAB. Oahu; near Honolulu, 2000 ft., in June, very rare; Blackburn.

Callithmysus microgaster var. ? *hirtipes*, var. nov. Tibiis posterioribus minus elongatis, usque basin densissime pubescentibus.

HAB. Oahu: one individual on the ridge leading from the head of Pauoa Valley to the peak called Konahuanui, Oct. 31st, 1892. On *Bobea* sp.

Subfam. LAMIINI.

Group ACANTHOCINIDES.

LAGOCHEIRUS Thoms.

(1) *Lagocheirus obsoletus* Thoms.

Lagocheirus obsoletus Thoms, Class. Longic. 1860, p. 10.

Lagocheirus araneiformis var., Sharp, Tr. ent. Soc. London, 1878, p. 210.

HAB. Oahu. Apparently confined, so far as this archipelago is concerned, to the

island of Oahu. This form is now considered to be a distinct species, though it is extremely close to the S. American insect with which it was previously identified—as a small form—by the late Mr Bates and myself. Gahan considers that *L. longipennis* Bates is a mere synonym of *L. obsoletus*. The form is widely distributed, having been found in Loo Choo islands, Tahiti, the W. Indies, and Mexico.

Group *NIPHONIDES*.

PROSOPLUS Blanch.

(1) *Prosoplus bankii* Fabr.

Lamia bankii Fabr., Syst. Ent. p. 176.

Micracantha insularis Pascoe, Tr. ent. Soc. London (2), v. 1859, p. 40.

Micracantha nutans Sharp, Tr. ent. Soc. 1878, p. 209.

HAB. On the introduced Acacia, *Prosopis* sp. Probably on all the islands. Mr Perkins, knowing it not to be native, procured but few examples. The species is very widely diffused, having been found in Madagascar, Port Essington, Tondano, Amboyna. *L. bankii* was described as found at the Cape of Good Hope. The identification is due to an examination of the Banksian type in the collection of the British Museum made by Mr Gahan. The genera *Prosoplus* and *Micracantha* are considered by him to be one and the same.

Group *APOMECCYNIDES*.

APOMECCYNA Serv.

(1) *Apomeccyna pertigera* Thoms.

Mecynapus pertigera Thoms. Physis, 1. 6, p. 160.

HAB. Oahu. In a garden, Honolulu, November 1896, Perkins. Kauai, July 1897, Munro. The species comes from E. India and China.

Group *PTERICOPTIDES*.

OOPSIS Fairm.

(1) *Oopsis nutator* Fabr.

Lamia nutator Fabr., Mant. 1. p. 142.

Stasilea curvicornis Karsch, Berlin. ent. Zeitschr. xxv. p. 8, Plate I. fig. 12.

HAB. Probably on all the islands. Abundant at low elevations. Widely distributed in Polynesia, and found in Australia.

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